



Collect Earth

Multi-purpose land monitoring



Collect Earth in a nutshell

- User friendly data collection tool based on standard Java technology
- Google Earth used as data entry interface
- Zero-configuration necessary, runs out of the box on Windows and Mac
- Fast learning curve, only limited computer skills necessary
- No heavy data download necessary
- Individual or team based data collection

So what is Collect Earth?

A demo is worth a thousand words

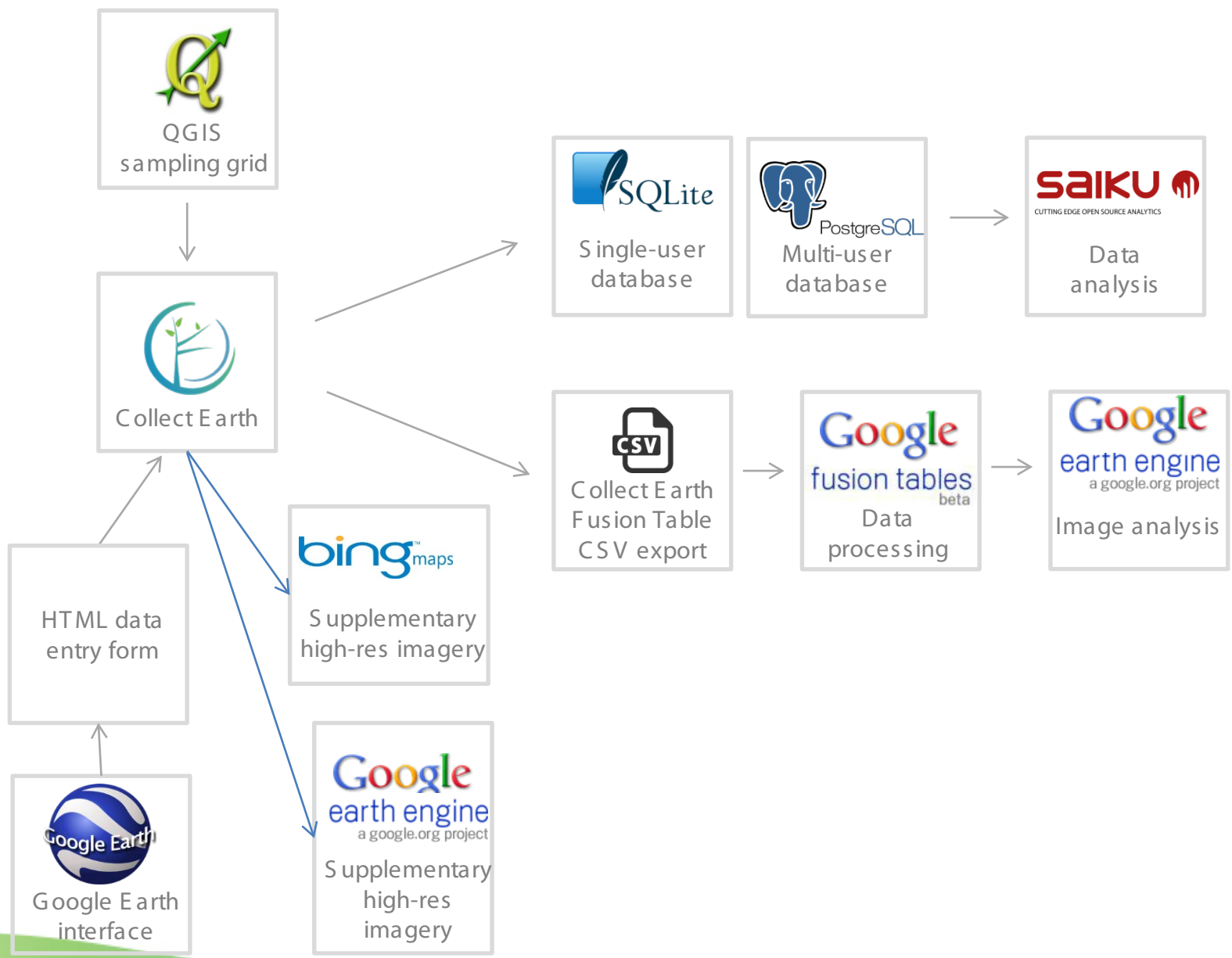
- Very High Resolution multi-temporal images from Google Earth and Bing Maps
- Landsat 7 and 8 datasets from Google Earth Engine
- Data Analysis through Saiku

History

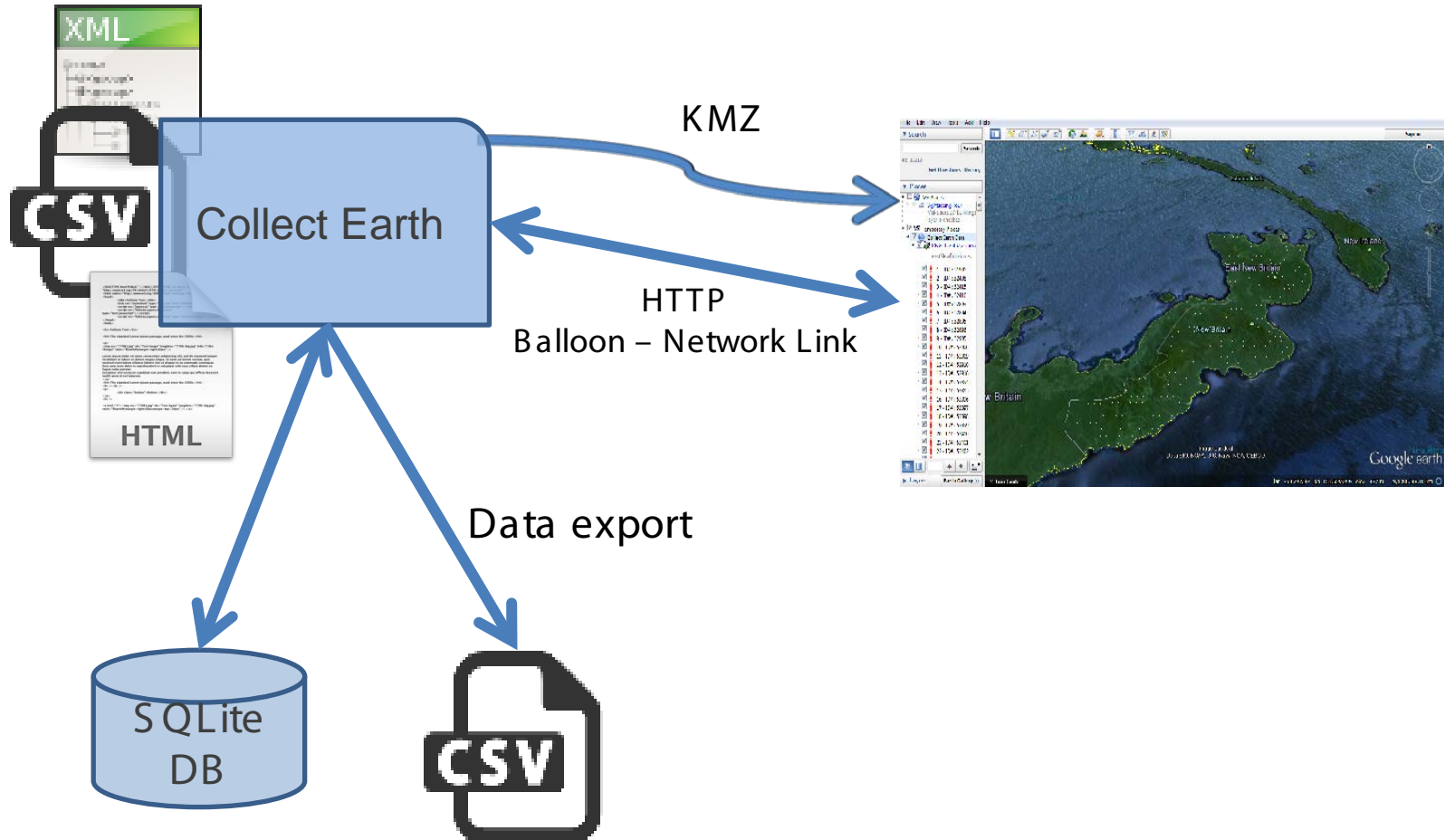
- Open Foris Initiative
 - Collect, Collect Mobile and Collect Earth
 - Calc
 - Geospatial Toolkit
- BMU Project (Capacity Building for REDD+ NFMS)
 - 18 Countries + more UN-REDD countries such as PNG and Mongolia

Use Cases

- Support multi-phase National Forest Inventories
- LULUCF assessments
- Monitoring agricultural land and urban areas
- Validation of existing maps
- Collection of spatially explicit socio-economic data
- Quantifying deforestation, reforestation and desertification



Open Foris Collect Earth



What do you want to analyze?

The image displays four panels of the Collect Earth web application interface, illustrating the data entry process for land use analysis. Each panel features the 'Collect Earth' logo and a South African flag.

- Panel 1 (Left):** Information of plot ID: [id]. Land use category (Forest, Grassland, Cropland, Wetland, Settlement, Other, No Data, Accuracy YES/NO). Land use sub-category (F>F, C>F, G>F, W>F, S>F, O>F, Accuracy YES/NO, Year N/A). Land use sub-division (Main Type: Natural forest, Sub-division: Northern Afrotropical Forest Gr, Sub-Type: Marekale Afromontane Forests, Accuracy YES/NO). Canopy (Cover in %, 0-10, 10-30, 30-50, 50-70, 70-100, No Cover, Burnt, Other, Accuracy YES/NO, Type: Random, Sparse, Grouped, Linear, Unkn.). Site description (accessibility distance km, 0-1, 1-2, 2-3, 3-5, 5-10, >10, inacc., Bearing from plot to access point, N, N-E, E, S-E, S, S-W, W, N-W, Directions, Elements: Road, River).
- Panel 2:** ID: [id] - Elevation: [elevation]m, Aspect: [aspect]°, Slope: [slope]°. Land use category (Forest, Grassland, Cropland, Wetland, Settlement, Other, No Data, Accuracy YES/NO). Land use sub-category (F>F, C>F, G>F, W>F, S>F, O>F, Accuracy YES/NO, Year N/A). SUBMIT & VALIDATE button.
- Panel 3:** ID: [id] - Elevation: [elevation]m, Aspect: [aspect]°, Slope: [slope]°. Land use categories (Agriculture/forestry/Fishing, Manufacturing/energy, Transport/Comm/Storage/Pub, Unused/Abandoned Areas, No Data, Accuracy YES/NO). Land use sub-division (TRANSPORT/COMM. NETWORKS/STORAGE/PROTECTIVE WORKS: Railways, Roads, Water transport, Air transport, Pipelines; SETTLEMENTS: Residential, Construction, Comm. Services; OTHER: Telecomm, Storage, Protection works; WATER AND WASTE TREATMENT: Water supply and treatment, Waste treatment; RECREATION, LEISURE, SPORT: Amenities/Museums/Leisure, Sport, Holiday camps, Accuracy YES/NO). Site description (Directions, Elements: Road, River, Lake, House, Trees, Garden, Other).
- Panel 4 (Right):** Land Use/Cover - ID-TRACT: [id]. Land Use/Cover Classes (indicate the number of points falling in each LUCC 1-25). Nat Forest cc=0%, Nat Forest cc=50%, Nat Forest cc>=50%, Planted Forest, Other land cc=0%, Other land cc=50%, Other land cc>=50%, Other wooden land, Inland Water, Outside Country/Ocean, Unknown. No points allocated. Interpretation Uncertainty (Low, Medium, High), Presence of Wetlands (YES/NO), Presence of Planted Forest (YES/NO), Presence of Woody Vegetation (YES/NO). FOREST RIGHTS/RESPONSIBILITIES (Category of tenure: Community/Village allocated natu, RIGHTS: Harvesting non wood products, H, Specify other right, Comments on forest rights). RESPONSIBILITIES (Choose responsibilities, Comments on forest responsibilities). FOREST PRODUCT TRENDS (Product: Firewood, Trend: Choose trend; Timber - Hard wood (group 1 to 4), Timber - Hard wood (group 5 to 6), Timber - Fast growing trees (group 7 to 8), Medicinal plants, Rattan, Fruits, nuts, seeds, roots, berries, etc., Mushrooms, Fodder, Herbs and spices, Dying/tanning).

UNFCCC reporting

- Collection of activity data
 - Follow IPCC guidelines:
 - IPCC Vol.4 Chapter 3 (Consistent Representation of Lands) : Approach 3 Spatially-Explicit Land-Use Conversion Data
 - Sampling approach (same as Annex II countries)
 - Land use, land use conversion (at least from 2000) and Land Use Subdivision
 - Data directly importable to GHG inventory tools (ALU Tool/IPCC software)
 - Integrating other data sources (Climate zone and soil data)

Next steps

- Finalize Collect Designer integration (allow the easy creation of surveys)
- World wide grid at 0.1 degrees for no-upstart costs (creation through Q Gis)
- Integration with other sources of informationsuch as [Planet Labs](#)

Thank you!

Visit our site www.openforis.org